

University Reputation as a Signal of Territorial Attractiveness: A Mixed-Methods Look at Morocco's Higher Education System, from National Patterns to Local Specificities.

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ABSTRACT

Does a university's standing rub off on the place that hosts it? Most of what we know about that question comes from North America and Western Europe, where reputation is already built into how regions sell themselves. Morocco offers something different: a system that has expanded fast, holds real reputational capital, and has almost no machinery for converting it into territorial positioning. We address that gap with the URTAS-Morocco framework (University Reputation-Territorial Attractiveness through Signaling), which stops treating reputation as a single score and breaks it into four signals stakeholders read separately — academic legitimacy, economic embeddedness, social visibility, and symbolic differentiation. By looking past the metropolitan cases to include a secondary coastal city, we show these mechanisms hold everywhere but change shape depending on where you stand.

Methodological approach: A convergent mixed-methods design. We began inductively, with the Gioia methodology, so that the mechanisms linking reputation to attractiveness would emerge from what stakeholders actually said rather than from categories set in advance. A confirmatory phase then tested the resulting model through structural equation modeling.

Sample: Eight focus groups and forty-two semi-structured interviews with four stakeholder groups across seven Moroccan university cities, followed by a national survey of 1,240 respondents.

Main conclusion: The four signals appear everywhere, but never in quite the same shape twice: metropolitan hubs lean on research intensity and international partnerships, secondary and coastal cities on applied training, industrial anchoring, and civic proximity. University reputational capital shapes territorial attractiveness perception along two pathways, institutional confidence ($\beta = 0.39$) and knowledge ecosystem signaling ($\beta = 0.21$), which with a residual direct effect ($\beta = 0.14$) account for 41.3% of the variance ($R^2 = 0.413$). One gap runs through all seven sites: universities rarely turn their reputational assets into deliberate territorial branding. Territorial context does not dilute the power of university reputation, it decides what form that power takes.

Keywords

university reputation; territorial attractiveness; place branding; signaling theory; Gioia methodology.

INTRODUCTION

Few relationships in regional development carry as much weight, or have been theorized as thinly, as the one between a university and the territory around it. Universities train workers, seed innovation ecosystems, animate the cultural life of their cities, and put out institutional signals that carry well beyond campus walls. At the same time, cities and regions across the Global South are chasing the same mobile prizes harder than ever, skilled workers, foreign investment, knowledge-intensive firms, and that competition is no longer decided by production costs or tax breaks alone. A sizable body of research now holds that how a place is imagined and talked about by outsiders matters just as much as what it actually offers [1][2][3]. Universities' economic footprint on their regions has been studied at length [4][5]; the reputational side of that same relationship, how a university's standing colors outside impressions of the territory around it, has drawn far less attention, particularly outside wealthy-country contexts.

Morocco makes a useful test case. Over the past two decades the country has pushed through a sustained expansion of public higher education, building new universities in major cities and secondary regional capitals alike. What has not kept pace is any serious effort to fold that reputational capital into how territories market themselves. Regional development plans reference universities constantly, but almost always as infrastructure, bricks and mortar rather than an asset that shapes outsiders' judgments of a place [6]. That gap is not merely an oversight in planning documents; it points to something missing at the conceptual level. No established framework traces the mechanisms by which a university's reputation becomes a territorial signal, and none asks whether those mechanisms behave the same way in a capital city as in a smaller, more specialized university town. Place branding scholarship does acknowledge that knowledge institutions matter to how a territory is perceived [7][8], but it tends to cast universities as scenery rather than actors, and rarely asks whether a signal that works one way in a metropolis works the same way somewhere smaller.

That last question is what drives this paper. Two connected pieces of fieldwork inform what follows. The first is a national inquiry spanning six of Morocco's principal university cities, built inductively to trace how university reputational capital feeds into territorial attractiveness perception, then tested at system scale. The second is a closer look at a seventh site, El Jadida, home to Chouaib Doukkali University (CDU), a public university founded in 1985 that today enrolls more than 45,000 students across seven faculties in the Casablanca-Settat region. El Jadida was left off the original six-city list, which is exactly what makes it useful here: a

coastal, industrially anchored secondary city sitting next to Casablanca yet structurally quite unlike it. Rather than write El Jadida up as a stand-alone case tacked on at the end, we fold it directly into the national qualitative corpus. The reasoning is simple enough: a signaling framework that only describes metropolitan capitals hardly deserves to be called a national framework. Building a smaller, differently positioned city into the core analysis, instead of setting it apart in its own section, is what actually lets us test that claim rather than just assert it.

The question this study asks therefore cuts two ways: through which mechanisms does university reputational capital shape territorial attractiveness perception across Morocco's higher education system, and how does the expression of those mechanisms, if not their kind, shift across territories of different size and economic makeup? We answer it by pairing an inductive qualitative phase (Gioia methodology, seven cities, four stakeholder categories) with a confirmatory quantitative phase (structural equation modeling, $n = 1,240$) that tests the resulting model at national-system level.

Two research questions carry this broader aim into the empirical sections that follow.

-RQ1. Through which specific mechanisms does university reputational capital (URC) shape territorial attractiveness perception (TAP) within Morocco's higher education system, and through what structural pathways are these mechanisms transmitted at national scale?

-RQ2. How does the expression of these mechanisms vary across university cities of different demographic scale, economic specialization, and institutional history, from the metropolitan hubs of Rabat, Casablanca, and Fès to a secondary, industrially anchored coastal city such as El Jadida, and what boundary conditions does that variation reveal for the URTAS-Morocco framework?

Three contributions follow from this design. We extend signaling theory [9] into territorial competition, showing that university reputation meets the formal conditions of an effective signal not just on average but across genuinely different territorial settings. We add to place branding theory [7][10] an empirically grounded account of how university reputation travels as a place-quality cue, and of how that circulation shifts with context instead of staying uniform. And we offer what is, as far as we know, the first large-scale, multi-site test of the reputation-attractiveness link in Moroccan higher education that deliberately checks whether a national model survives contact with a non-metropolitan, single-institution setting, through the URTAS-Morocco framework proposed here.

The rest of the paper runs as follows. Section 1 lays out the conceptual foundations. Section 2 details the mixed-methods design and its safeguards. Section 3 reports the qualitative findings around four signaling dimensions, tracking territorial variation throughout. Section 4 reports the quantitative structural results. Section 5 draws both strands together into the URTAS-Morocco framework. Section 6 works out theoretical and practical implications. Section 7 covers limitations and future directions, and a short conclusion closes the paper.

1. CONCEPTUAL FOUNDATIONS

1.1 Territorial Attractiveness as a Perceptual Construct

Early work on territorial competitiveness focused on what could be counted: factor costs, market proximity, infrastructure, regulation [3]. The underlying model was rationalist, territories win by offering a better bundle of inputs. That model only held up so far. Empirical research kept turning up evidence that the mental pictures people carry of places matter in their own right, independent of whatever a place objectively has to offer [7][11]. Hatem [2] gave this observation its clearest formulation, arguing that attractiveness is less a fixed stock of assets than a sustained capacity to send credible quality signals to people who might move, invest, or relocate. For a territory whose real assets are substantial but poorly communicated, that distinction matters enormously: anchoring institutions, a trained workforce, and expanding infrastructure will not translate into attractiveness if nobody outside the territory ever hears about them.

This perceptual turn dovetails with place branding research, a field concerned with exactly how territorial actors build, communicate, and cash in on the associative capital of the places they represent [7][12][13]. Kavaratzis and Ashworth [10] push the point further, arguing that place branding is not simply messaging; it is a process in which identity gets co-produced by the many actors, institutions, communities, firms, governments, that inhabit and animate a given territory. Zenker and Braun [3] build on this relational view, describing place brand equity as something that emerges through repeated interaction among governance bodies, residents, institutions, and outside audiences. Universities fit naturally into this picture, not as passive infrastructure but as potential co-authors of territorial identity, although the place branding literature has, so far, treated their role as incidental rather than central.

1.2 University Reputation as a Multi-Dimensional Signaling Asset

In management scholarship, organizational reputation refers to the cumulative judgment stakeholders form about an entity based on what it does, what it commits to, and how it stacks up against peers [14][15]. What sets reputation apart from image or identity is precisely that

accumulation: it builds up over years of interaction rather than from any single communication push. Applied to universities, reputation spans several distinct dimensions at once, research output and academic quality, graduate employability, governance credibility, civic engagement, and the harder-to-pin-down symbolic prestige attached to an institution's name in different audiences' minds [16][17].

That multiplicity is not just a taxonomic detail; it drives the signaling logic this paper develops. Investors, skilled workers, students, and civic actors do not read reputational information the same way. An investor scouting a site for a knowledge-intensive plant looks mainly at workforce quality and ecosystem maturity; someone weighing a personal relocation cares more about social infrastructure and institutional credibility; an employer hiring for technical roles may care less about prestige than about whether graduates can actually do the job. Any account of how university reputation shapes territorial attractiveness has to make room for this observer-dependence, and, as the findings below show, its territorial dependence as well.

1.3 Signaling Theory as the Explanatory Mechanism

Signaling theory supplies the mechanism connecting reputation to attractiveness. Spence [9] developed the theory to explain how information asymmetries get resolved in labor markets: when one party holds quality information the other party needs but cannot verify directly, certain observable traits can stand in as signals, letting the less-informed party make an educated guess about what it cannot see. For a signal to do this job it has to be visible, credible, hard for lower-quality actors to fake, and legible to whoever is reading it [9][18].

Applying this logic to territorial competition is not much of a stretch. A university's accreditations, research output, alumni track record, and industry partnerships are all visible to outsiders. Building a reputable university takes decades of sustained investment in recruitment, research, and governance, which is exactly what makes the resulting signal hard to counterfeit. And what the signal conveys, workforce depth, ecosystem maturity, institutional reliability, speaks directly to what investors and skilled workers are trying to work out when choosing where to go. Signaling theory has already been applied to competition between firms [19], to product-quality certification [18], and to corporate reputation more broadly [20], but it has not been worked through systematically for territorial competition in emerging economies, and certainly not tested for whether it holds up the same way across cities of very different size within a single country.

1.4 Research Gap and the URTAS-Morocco Framework

No study we know of has modeled university reputational capital and territorial attractiveness perception jointly within a single Moroccan framework, let alone asked whether the underlying mechanisms hold steady between metropolitan and secondary university cities. The closest existing work either treats university reputation as something to be explained [16][17] or folds universities into broader territorial-competitiveness analyses as background controls [3][4][21]. This study takes a different route: it positions university reputational capital (URC) as a structural predictor in its own right and proposes two mediating constructs, institutional confidence (IC) and knowledge ecosystem signaling (KES), identified inductively from qualitative material gathered across cities of different scale and then tested quantitatively at the system level. Combined with the finding that these signals are territorially specified rather than uniform, this dual-pathway structure is what we call the URTAS-Morocco framework (University Reputation-Territorial Attractiveness through Signaling).

2. METHODOLOGY

2.1 Research Design: A Sequential, Territorially Extended Mixed-Methods Design

We use a convergent mixed-methods design [22]: a qualitative phase built for theory development, followed by a quantitative phase built to test and validate what the qualitative phase produces. The two phases pull in the same analytical direction, the qualitative work supplies mechanisms and depth, the quantitative work supplies breadth and statistical rigor. Both address the same research question from different angles, and the two strands come together at the interpretation stage rather than running in parallel and staying unreconciled. One feature sets this design apart from earlier single-site or purely national studies: the qualitative phase was fielded in two waves aimed at different territorial scales. The first wave covers six cities chosen for institutional and geographic variety at the national level. The second, fielded in El Jadida around Chouaib Doukkali University, was built specifically to check whether the mechanisms identified nationally still hold in a secondary, industrially specialized coastal city the six-city sample left out. Rather than write this second wave up as a standalone case, we treat it as an extension of the same inductive inquiry, coded under the same analytical scheme and reported dimension by dimension, side by side with the national material. The logic is straightforward: a framework describing only metropolitan capitals is not, in any real sense, a national framework. Folding a smaller, differently positioned city into the main analysis, rather than tucking it away in an appendix-like case section, is what actually puts that claim to the test.

Epistemological positioning and mode of reasoning. This methodological architecture rests on an explicit epistemological positioning. The study adopts a critical realist stance: university reputation is treated as a real phenomenon, produced by institutional structures and practices that exist independently of any observer, yet accessible only through the interpretations territorial stakeholders build of it. This position rules out both a strictly positivist reading, which would reduce reputation to a set of objective indicators, and a purely constructivist reading, which would dissolve it into individual perceptions alone. It is this dual nature that justifies combining two modes of reasoning. Abductive reasoning governs the qualitative phase: rather than testing hypotheses drawn from the existing literature, we let the signaling mechanisms emerge from the field material through the Gioia methodology, then move back and forth between empirical data and theoretical corpus to build a plausible explanatory framework. Hypothetico-deductive reasoning then takes over in the quantitative phase, where the hypotheses formalised at the end of the qualitative phase are submitted to statistical falsification on a broader sample. This sequence answers a requirement inherent in our research question: identifying mechanisms that no earlier study has modelled in the Moroccan context calls for an exploratory approach, while establishing their scope at national-system scale calls for a confirmatory one.

2.2 Qualitative Phase: Grounded Mechanism Identification Across Seven Cities

Fieldwork covered seven Moroccan university cities: Rabat, Casablanca, Fès, Marrakech, Oujda, and Agadir in the first wave, El Jadida in the second. This mix captures institutional diversity on several fronts: age and resource endowment (Rabat, Casablanca, and Fès host the country's oldest and best-resourced universities), geography (coast, interior, southern periphery), and level of economic development (metropolitan versus secondary). El Jadida adds a further axis: a coastal secondary city whose university sits next to an industrial basin built around phosphate processing and chemical manufacturing at Jorf Lasfar, rather than a diversified metropolitan services economy.

Across both waves we conducted forty-two semi-structured, in-depth interviews and eight focus groups (six to twelve participants each), spanning four stakeholder categories: university administrators (deans, vice-presidents, directors of professional schools); regional governance and investment-promotion officials (Regional Investment Centre staff, regional council officers, municipal planners); private-sector employers and investment-facilitation directors; and mobile or locally rooted skilled professionals whose career and relocation choices are shaped by what a place signals about itself. Twenty-four interviews and all eight focus groups

belong to the six-city wave; eighteen more interviews were conducted in El Jadida, spread across the same four categories (five senior CDU administrators, four regional and municipal governance officials, four investment-facilitation directors, five qualified regional professionals). Individual interviews ran between 48 and 87 minutes, averaging around 65 minutes, conducted in whichever language participants preferred, Moroccan Arabic or French, recorded with informed consent, and transcribed in full. Participant identities were protected throughout via role-based anonymization.

Interviews and focus groups probed how participants perceived university quality, what links they saw between institutional reputation and regional development, and how governance structures shaped, or failed to shape, the relationship between university and territory. Analysis followed the Gioia methodology's three tiers [23]: open first-order coding that stays close to informants' own words, interpretive second-order theming, and consolidation into aggregate dimensions. Two researchers coded independently within each wave; on the first six double-coded transcripts of each wave, inter-coder reliability came out to Cohen's $\kappa = 0.83$ for the six-city corpus and $\kappa = 0.82$ for the El Jadida corpus, both above the 0.80 threshold generally treated as satisfactory in qualitative coding [24]. Remaining disagreements were settled through discussion. Across the two waves combined, coding produced 318 first-order codes, sorted into twelve second-order themes and consolidated into the same four aggregate dimensions in both cases, a convergence worth pausing on, since it means El Jadida's informants were describing variants of the same four mechanisms rather than something categorically different. Saturation was reached at the twenty-second conversation in the six-city wave and the sixteenth interview in El Jadida, after which further conversations mostly confirmed rather than extended the emerging picture. Senior informants in both waves reviewed the results (three nationally, three in El Jadida) and confirmed that the emerging constructs rang true and matched their own understanding.

We pursued trustworthiness along the lines Lincoln and Guba [25] set out. Credibility rests on triangulating across four stakeholder categories and two territorial waves; transferability is supported by how densely each site is described; dependability rests on the audit trail kept throughout coding, including memos recording interpretive choices; confirmability rests on independent dual coding and the member-checking described above.

The qualitative sample was never meant to be statistically representative; it was built for analytical adequacy, following the purposive, maximum-variation logic standard in Gioia-style research [23]. Cities were chosen to maximize variation on dimensions relevant to the

research questions, institutional age, geography, economic development, rather than to mirror the population distribution of Morocco's higher education system. Within each city, the four stakeholder categories were chosen because each sees the university-territory relationship from a genuinely different angle: administrators build the reputational asset from the inside; governance and investment-promotion officials translate it into territorial messaging; employers judge it from the demand side of the labor market; mobile professionals experience it as consumers of place-based information. Adequacy, in this design, shows up as saturation within both waves and as convergence across stakeholder categories on the same four dimensions, not as raw sample size.

2.3 Quantitative Phase: Structural Model Testing

We administered a structured questionnaire to 1,240 respondents, allocated proportionally across the six cities covered by the national qualitative wave, with quota sampling ensuring representation across four stakeholder categories: students ($n = 430$), graduates ($n = 310$), faculty ($n = 260$), employers ($n = 240$). Every construct used five-point Likert items built from the qualitative findings and anchored, where possible, in established measures. University reputational capital (URC) drew on five dimensions surfaced qualitatively: academic output quality, governance transparency, graduate employability, international visibility, and local economic embeddedness. Institutional confidence (IC) used four items capturing perceived trustworthiness, accountability, and policy coherence. Knowledge ecosystem signaling (KES) used four items covering innovation dynamism, talent availability, and research-industry links. Territorial attractiveness perception (TAP) used five items spanning investment appeal, residential desirability, talent retention, tourism appeal, and global positioning.

We ran structural equation modeling with latent variables in AMOS 26, judging model fit against standard indices (CFI, RMSEA, SRMR) and testing sequential mediation through bootstrapped confidence intervals (PROCESS macro v4.1, 5,000 samples, 95% bias-corrected CI) [26]. One scope point deserves flagging up front: the quantitative sample, matching the six-city qualitative wave that generated its measures, does not include El Jadida. The El Jadida evidence in this study is therefore qualitative throughout, serving as a boundary-condition test on the model rather than an additional quantitative data point. We return to this distinction in Section 8.

Representativeness was pursued on two fronts. Geographically, the 1,240 respondents were allocated in proportion to each city's share of national university enrollment, so metropolitan hubs with larger student and graduate populations (Rabat, Casablanca) carry proportionally

more weight in the sample than secondary cities (Fès, Marrakech, Oujda, Agadir), rather than each city receiving an equal, and therefore distorting, quota. Within each city, quotas by stakeholder category were set from proportional estimates of the underlying populations, drawing on university enrollment records for students, graduates, and faculty, and on regional business-registry data for employers, so the achieved sample's composition tracks the underlying population rather than reflecting convenience or arbitrary allocation. At the aggregate level, $n = 1,240$ yields a margin of error of roughly ± 2.8 percentage points at 95% confidence for proportion estimates, precision we consider adequate for the construct-level and multi-group comparisons reported in Section 5. Two limits still qualify this claim: the sampling frame necessarily stops at the six cities studied, a gap the qualitative extension to El Jadida is meant to address, and self-selection into survey participation cannot be entirely ruled out despite the quota procedure.

2.4 Integration Strategy and Ethical Considerations

The two strands come together at the interpretation stage: qualitative dimensions, and their territorial variants, shaped how the quantitative constructs and items were specified, and the quantitative structural results are read back against the qualitative account of where and for whom each mechanism operates. All participants gave informed consent, and anonymity was preserved throughout data collection, analysis, and reporting through role-based coding of informant identities.

3. QUALITATIVE FINDINGS: FOUR SIGNALING DIMENSIONS AND THEIR TERRITORIAL EXPRESSION

Coding across both fieldwork waves produced 318 first-order codes, organized into twelve second-order themes and consolidated into the four aggregate dimensions that make up the qualitative core of the URTAS-Morocco framework. Each dimension is a distinct mechanism through which university reputation turns into a territorial signal, and, as the discussion below shows, each takes a different shape depending on the size, economic profile, and institutional history of the city hosting it.

3.1 Academic Legitimacy Signal

The first dimension captures how a university's perceived academic standing, visible through accreditations, research partnerships, faculty credentials, and national or international recognition, works as a stand-in for the quality of the territory's human capital. Across every stakeholder category, informants described using observable academic credentials as a shortcut when they lacked direct information about local workforce quality. An investment-

promotion official in Casablanca-Settat summed it up plainly: "When we open a regional prospecting presentation, the universities are our first argument. Their accreditations tell the investor something about the quality of what this region can offer in ten years."

The mechanism looks somewhat different in El Jadida. Chouaib Doukkali University has not yet built the kind of national research profile that would let it lean on rankings, so its academic legitimacy signal travels instead through the visible, applied credibility of its training in engineering, chemistry, and information technology, fields tied directly to the region's industrial base. A CDU faculty dean put the mechanism precisely: "Program accreditations are literally the first thing firms check before considering El Jadida as a potential site. They are not just evaluating the university, they are using it to make inferences about the whole ecosystem." Several investment-promotion informants confirmed that CDU's record training engineers in applied sciences shows up routinely in investor-prospecting documents as proof of workforce readiness, an active if still partial use of the academic legitimacy signal.

This signal is not spread evenly across Morocco's higher education map. Universities in the major metropolitan centers (Rabat, Casablanca, Fès) generate a stronger academic legitimacy signal simply because they produce more research and hold more international partnerships; universities in secondary and coastal cities such as El Jadida are seen mainly through their training function, a signal that is locally potent but, for now, has a narrower reach among investment-minded audiences based outside the region. One pattern cuts across both settings: because accreditations and academic recognition build up over time and resist quick manipulation, they give observers a more dependable basis for inference than short-lived promotional messaging, whatever scale the signal operates at.

3.2 Economic Embeddedness Signal

The second dimension concerns how deeply a university is woven into its local productive economy. Two mechanisms recurred across the corpus. The first works through graduate labor-market outcomes: when a university's alumni are visibly recruited by regional and national employers, that fact communicates something like a quality guarantee about the territory's labor supply. The second works through the density of industry-university partnerships: formal collaboration agreements tell prospective investors that a functioning institutional ecosystem already exists, which lowers the perceived risk of entering the market. A Regional Investment Centre officer in Fès-Meknès described how this plays out in practice: "We include partnership data in investor dossiers specifically because it shows the territory is not a vacuum. There are already structured relationships here."

In El Jadida this mechanism runs through an unusually concrete channel: the university's formal agreements with the region's chemical and industrial employers. A CRI investment-desk officer explained: "When we present the region to an international firm, we include CDU's industrial partnership data in the opening section. It tells the investor that they would not be arriving in a vacuum, there are already structured relationships between training institutions and local businesses." Where metropolitan universities signal economic embeddedness mainly through diversified services and technology partnerships, El Jadida's version is narrower but more pointed: it speaks directly to one industrial cluster, which makes it highly credible to investors in that sector even though its broader reach stays more limited than Casablanca's or Rabat's. Mobile skilled professionals in both waves reported a related effect: cities known for hosting well-networked universities feel more legible as career environments, which lowers the informational cost of deciding to relocate there, regardless of the city's size.

3.3 Social Visibility Signal

The third dimension has drawn less attention in place branding scholarship, yet it came up with remarkable consistency across all seven cities: a university's presence in the social and cultural life of its host city produces a kind of urban vitality that functions, on its own, as an attractiveness cue. Informants described how a large, active university gives its city a distinctive rhythm and civic density, an intellectual atmosphere that prospective residents and skilled workers read as a quality-of-life signal. An elected official on Marrakech's Urban Development Committee put it this way: "A city with a university has a kind of social energy that you cannot manufacture. It attracts people who are looking for more than employment, they are looking for an environment."

In El Jadida, municipal officials described something similar but locally colored, with the university's civic footprint amplified by the city's coastal, historically cosmopolitan character. One official noted: "A city with a large, active university has a rhythm, a conversation, a cultural density that you can feel. For anyone considering relocating, that matters, perhaps as much as the economic variables." A further pathway, documented especially clearly in the El Jadida material but echoed nationally, runs through alumni networks: graduates who build careers elsewhere carry an associative memory of their university city into professional networks across Morocco and abroad, functioning as distributed, if unofficial, territorial ambassadors. This alumni-driven visibility effect has drawn little systematic attention in the

literature so far, but across both metropolitan and secondary sites it appears to extend a university's territorial reach well past its immediate surroundings.

3.4 Symbolic Differentiation Signal

The fourth dimension, the most abstract of the four, concerns a university's ability to generate symbolic capital, a form of reputational surplus that goes beyond any single academic or economic attribute and works as a general-purpose way of setting a territory apart. Informants across the corpus described how simply having a recognized university changes the register in which outsiders talk about and perceive a city, setting up an initial impression of institutional maturity that colors how every later piece of territorial communication gets read. An investment-promotion director captured this directly: "The university is the frame, not the content. Once we establish CDU's or Mohammed V's credibility, everything else we say about the region lands differently." This framing effect, what we call the symbolic anchor effect, showed up at every institutional scale we studied, from smaller regional universities to the country's leading institutions, though its reach and strength varied a great deal.

An AMDIE official speaking specifically about El Jadida made much the same point from the investment-promotion side: "In our pitches, the university is not a footnote, it is the opening argument. We use CDU to establish intellectual credibility, and everything else we say about the region's assets lands differently once that credibility is established." Read together, the metropolitan and El Jadida material point to a boundary condition worth naming outright: the symbolic differentiation signal seems to need a minimum threshold of institutional visibility, ideally reaching beyond the immediate region, before it can register with audiences located outside the territory. CDU appears to be approaching that threshold without having fully crossed it in international terms; below it, the symbolic signal stays legible mostly to locally or nationally informed audiences and carries a narrower reach than the equivalent signal from, say, Mohammed V University in Rabat. This does not disconfirm the mechanism; it specifies its operating range, precisely the kind of boundary condition a purely metropolitan sample could never have surfaced.

3.5 The Reputation-Governance Gap: A Cross-Cutting Finding

One finding cuts across all four signaling dimensions and all seven cities studied: a persistent mismatch between the reputational assets Moroccan universities have built and the territorial branding strategies pursued by regional governance bodies. Informants on both sides recognized universities' signaling potential, yet universities and regional development bodies operate with no systematic coordination, no shared objectives, and no joint communication

channels. A deputy director at a Regional Investment Centre described the pattern without much subtlety: "Universities and Investment Promotion Centres do not talk to each other. These are two worlds that are entirely blind to each other's resources. From an economic standpoint, it makes no sense."

The gap is not born of indifference. It comes from an institutional architecture that puts academic governance under the Ministry of Higher Education and territorial development governance under regional administrations and the Ministry of the Interior, two worlds with different performance metrics, different timelines, and different communication cultures. In practice, this means much of the attractiveness potential locked in university reputational capital simply goes unused, a finding with real stakes for both university strategy and regional policy design. That the pattern held just as strongly in El Jadida as across the six nationally sampled cities suggests it is a systemic feature of Moroccan higher-education governance, not a quirk of any one place.

4. QUANTITATIVE FINDINGS: STRUCTURAL MODEL RESULTS

4.1 Descriptive Statistics and Measurement Quality

Average scores across constructs point to moderately positive assessments of university reputational capital overall ($M = 3.21$, $SD = 0.71$), with clear variation by city: metropolitan universities (Rabat, Casablanca) score higher ($M = 3.54$) than their counterparts in secondary cities ($M = 2.89$), consistent with the concentration of academic resources and international partnerships in metropolitan areas that the qualitative phase also picked up. Institutional confidence sits somewhat lower overall ($M = 2.98$, $SD = 0.68$), reflecting ongoing governance credibility concerns among employers and graduates. Knowledge ecosystem signaling is rated more favorably in major urban centers ($M = 3.44$) than in secondary cities ($M = 2.87$), echoing the center-periphery structure of Morocco's innovation landscape identified qualitatively as well.

Table N°1 : Construct Reliability and Descriptive Statistics

Construct (Cronbach's α)	Measurement Dimensions	Mean	SD
URC ($\alpha = 0.89$)	Academic quality, governance, employability, international visibility, local embeddedness	3.21	0.71
IC ($\alpha = 0.81$)	Institutional trust, accountability, policy coherence	2.98	0.68

Construct (Cronbach's α)	Measurement Dimensions	Mean	SD
KES ($\alpha = 0.77$)	Innovation dynamism, talent availability, R&D-industry linkages	3.16	0.74
TAP ($\alpha = 0.74$)	Investment appeal, desirability, talent retention, tourism, global positioning	3.09	0.69

Source: Authors' survey (n = 1,240). URC = University Reputational Capital; IC = Institutional Confidence; KES = Knowledge Ecosystem Signaling; TAP = Territorial Attractiveness Perception.

4.2 Structural Model Results

The full structural model fits the data well (CFI = 0.94, RMSEA = 0.057, SRMR = 0.063). URC predicts both IC ($\beta = 0.46$, $p < .001$) and KES ($\beta = 0.38$, $p < .001$) at a high level of significance. Both mediators, in turn, predict TAP: IC at $\beta = 0.39$ ($p < .001$), KES at $\beta = 0.21$ ($p < .01$). Even after accounting for both mediated pathways, URC still predicts TAP directly ($\beta = 0.14$, $p < .05$), pointing to partial rather than full mediation. Altogether, the model accounts for 41.3% of TAP variance ($R^2 = 0.413$).

Table N°2 : Structural Model — Hypothesis Testing Summary

Hypothesis	Path	β	95% CI	Result
H1	URC $\rightarrow$ IC	0.46***	[0.37; 0.55]	Supported
H2	URC $\rightarrow$ KES	0.38***	[0.29; 0.47]	Supported
H3	IC $\rightarrow$ TAP	0.39***	[0.30; 0.48]	Supported
H4	KES $\rightarrow$ TAP	0.21**	[0.11; 0.31]	Supported
H5	URC $\rightarrow$ TAP (direct)	0.14*	[0.03; 0.25]	Supported
H6	Indirect (IC + KES)	0.097	[0.064; 0.133]	Partial mediation

Note: *** $p < .001$; ** $p < .01$; * $p < .05$. Model fit: CFI = 0.94, RMSEA = 0.057, SRMR = 0.063. $R^2(\text{TAP}) = 0.413$.

4.3 Mediation Analysis

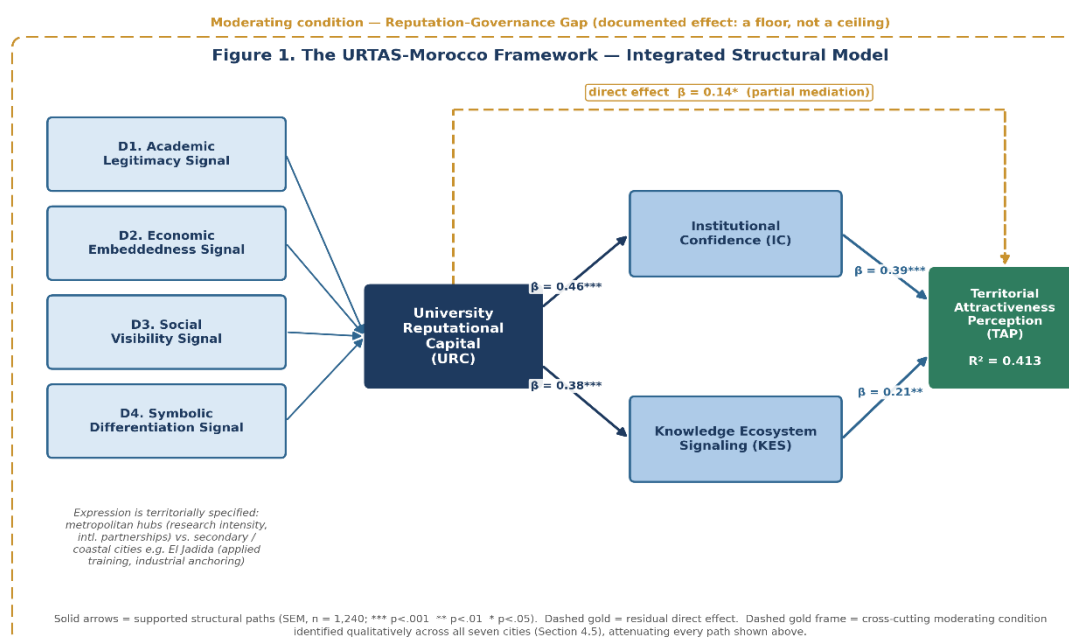
Bootstrapped indirect effects support the dual-mediation structure. The institutional-confidence pathway produces an indirect effect of 0.069 (95% CI [0.043; 0.098]); the knowledge-ecosystem-signaling pathway produces 0.028 (95% CI [0.011; 0.049]). Between them, the two indirect paths account for roughly 41% of the total URC $\rightarrow$ TAP effect, which

tells us reputational capital works mainly through relational and signaling mechanisms rather than through sheer visibility.

Multi-group analysis turns up some real differences between stakeholders. The IC pathway runs noticeably stronger among employers ($\beta = 0.51$) and graduates ($\beta = 0.44$) than among current students ($\beta = 0.29$), which fits with the idea that direct labor-market experience sharpens the trust-based processing of institutional reputation. The KES pathway is strongest in Casablanca and Rabat, where private-sector actors pay closer attention to knowledge-ecosystem dynamics, a pattern that lines up neatly with the qualitative finding that El Jadida's economic-embeddedness signal, credible as it is, reaches a narrower, more sector-specific audience than the more diversified knowledge-ecosystem signal coming out of the two largest metropolitan hubs.

5. THE URTAS-MOROCCO FRAMEWORK: INTEGRATED DISCUSSION

Figure N°1 : The URTAS-Morocco Framework — Integrated Architecture



Source : Authors' elaboration.

Bringing the qualitative mechanism-identification together with the quantitative hypothesis-testing lets us assemble the URTAS-Morocco framework as a single explanatory architecture, shown graphically in Figure 1. Its central claim is that university reputational capital does not shape territorial attractiveness through a simple glow of prestige spreading outward; it works through a portfolio of distinct signaling mechanisms, read selectively by different observers

according to what they need to decide, and expressed in ways specific to the scale and economic profile of the host city.

The qualitative phase identifies four signaling dimensions, academic legitimacy, economic embeddedness, social visibility, and symbolic differentiation, that together make up the reputational signal portfolio available to Moroccan universities. Extending the inquiry to El Jadida shows these four dimensions are not an artifact of sampling only metropolitan cities: they show up, structurally intact, in a secondary coastal city with a very different institutional history and economic base. What changes across sites is not how many mechanisms exist or what kind they are, but their carrier, international rankings versus applied engineering programs for academic legitimacy, diversified technology partnerships versus one concentrated industrial cluster for economic embeddedness, and their reach, most visible in the symbolic differentiation dimension, where a visibility threshold seems to determine how far a signal travels beyond the host region.

The quantitative phase shows this portfolio working through two structural pathways above all: institutional confidence and knowledge-ecosystem signaling. The first, strongest among employers and graduates, is a trust-building dynamic: perceived university credibility spreads outward into broader judgments about the territory's institutional reliability. The second, more prominent in metropolitan centers, is a productivity-signaling dynamic: university reputation tells investment-seeking audiences that a knowledge-intensive environment exists there. A direct URC $\rightarrow$ TAP effect ($\beta = 0.14$) survives even after accounting for both mediated pathways, matching what the qualitative material describes as symbolic differentiation: a university's name and standing shape territorial perceptions in ways that come before, and go beyond, the specific inferential work captured by the IC and KES constructs, which fits the broader claim that place brand equity carries both instrumental and expressive weight [7][3]. The reputation-governance gap documented across all seven cities frames how the quantitative results should be read. An R^2 of 0.413 is substantial, but it also means close to 59% of TAP variance sits outside the reputational-signal framework altogether, plausibly including the governance misalignment that keeps universities' reputational assets from converting fully into territorial attractiveness. Read this way, the effects reported here look like a floor rather than a ceiling: under stronger university-territory coordination, the reputational pathways would plausibly generate larger returns, in a secondary city like El Jadida no less than in the metropolitan hubs.

6. IMPLICATIONS

6.1 Theoretical Contributions

This study contributes to the literature in four ways. First, it extends signaling theory into inter-territorial competition in an emerging-economy setting, showing empirically that university reputation meets the formal conditions of an effective territorial signal across cities of markedly different scale, and tracing the mechanisms through which that signal actually operates in each. Second, it adds to place branding theory a grounded, multi-site account of how university reputational capital circulates as a place-quality cue, moving past passing references to knowledge infrastructure toward a more systematic account of the university as co-producer of territorial identity, one whose contribution is shaped by context rather than constant across it. Third, it introduces the URTAS-Morocco framework, a conceptual tool that pairs qualitative mechanism-identification with quantitative pathway-testing and builds in territorial boundary conditions from the outset, offering an architecture adaptable to other higher-education systems facing similar governance splits. Fourth, it names the reputation-governance gap as a construct worth studying in its own right, one that, given its recurrence in El Jadida as much as in the six nationally sampled cities, looks like a systemic rather than local feature of Moroccan higher-education governance.

6.2 Implications for University Governance

For university leadership, the URTAS-Morocco framework recasts reputation management as a public good with territorial consequences, not just an institutional marketing function. Investing in the four signaling dimensions pays off for the region as well as the institution, though what pays off best depends on context. Metropolitan universities gain most from continuing to prioritize internationally recognized accreditations and international partnerships. Secondary and coastal institutions such as CDU are better served by a different emphasis: consolidating and publicizing sector-specific industrial partnerships, systematically building alumni networks into territorial ambassadors, and working toward the visibility threshold that would let the symbolic differentiation signal reach investment-minded audiences beyond the immediate region. Across every institutional scale we studied, deliberately taking part in shaping territorial narratives, positioning the university as a central rather than peripheral piece of the region's competitive identity, comes through as a shared strategic priority.

6.3 Implications for Regional Development Policy

For regional development agencies and territorial governance bodies, this study offers both a diagnostic tool and an operational taxonomy. The URTAS-Morocco model lets planners see which signaling mechanisms are already working in their institutional ecosystem, which are underused, and what governance changes would be needed to unlock more of the attractiveness potential sitting in resident universities. The single most consequential implication, one that recurred at every site studied, is the need to close the reputation-governance gap through joint governance structures, shared communication channels, and coordinated prospecting narratives that treat university reputational capital as a core piece of the territorial offer, not a footnote tacked on at the end but the opening argument.

For Morocco's Ministry of Higher Education, the findings argue for policy calibrated to context rather than applied uniformly. Metropolitan universities are best positioned as knowledge-ecosystem anchors, supported through industry-linkage programs and international partnership initiatives. Universities in secondary, industrially anchored cities such as El Jadida need something different: targeted support to push international visibility above the threshold discussed in Section 4.4, alongside governance reform and community-engagement work aimed at building institutional confidence among local and regional stakeholders. Differentiating by context, rather than applying one national template everywhere, is the policy conclusion the territorial variation documented here most directly supports.

7. LIMITATIONS AND FUTURE RESEARCH

Several limitations qualify these findings and point toward useful next steps. Most directly, the quantitative structural model was validated on the six-city sample and does not extend to El Jadida; the El Jadida evidence here is qualitative and functions as a boundary-condition check rather than an additional data point feeding the SEM. Extending the quantitative survey to El Jadida and other secondary cities would let the territorial variation documented qualitatively here be tested with the same statistical rigor applied to the national model, and would clarify whether city scale moderates the IC and KES pathways as systematically as the qualitative pattern suggests.

The quantitative phase's cross-sectional design rules out tracking reputational dynamics over time; panel studies spanning pre- and post-accreditation periods would let researchers trace how reputation trajectories affect attractiveness outcomes as they unfold. The seven-city qualitative sample, more varied now than a purely metropolitan design would be, still leaves

out rural territories, small cities without a university presence, and highly specialized institutional settings; research in these contexts may turn up further boundary conditions for the URTAS-Morocco framework.

Because this study relies on perceptual data, a gap may exist between reported reputational assessments and observable behavior; future work should triangulate survey findings against mobility data, investment flows, and labor-market records to establish how far these attractiveness perceptions translate into actual behavior. How digital communication shapes external perceptions of university reputation is a particularly promising direction, since social media dynamics may reinforce, or complicate, the offline signaling mechanisms documented here, a question especially relevant for secondary cities trying to cross the visibility threshold identified in the symbolic differentiation dimension.

Finally, applying the URTAS framework comparatively across other Maghreb or sub-Saharan African higher-education systems would help establish how far these findings generalize and surface further context-specific moderators, governance quality, the robustness of national accreditation systems, regional economic development levels, that could shift the size and direction of the pathways identified here.

CONCLUSION

This paper set out to show that university reputation is a real, empirically traceable driver of territorial attractiveness in Morocco, working through a portfolio of signals that reach different stakeholders through different informational routes, a portfolio that stays structurally stable across cities of very different size even as its expression shifts with local economic profile and institutional history. The URTAS-Morocco framework brings together grounded qualitative evidence on signaling mechanisms, gathered across seven cities spanning metropolitan hubs and a secondary coastal city, with quantitative validation of their structural effects at national scale, offering a model that is both theoretically coherent and practically usable for thinking about the university-territory relationship in an emerging-economy setting.

Three findings stand out. First, institutional confidence is the dominant mediating mechanism, outweighing knowledge-ecosystem signaling in both size and stakeholder breadth, which suggests that what mobile actors want most from Moroccan universities is not prestige but trustworthiness: proof of reliable, accountable, socially engaged institutional behavior. Second, the reputation-governance gap, present in all seven contexts examined including El Jadida, stands out as the single most consequential barrier to converting reputational potential into territorial outcomes, and therefore as the most consequential point of leverage for policy, wherever a given university sits. Third, and specific to the design used here, the fact that El Jadida's university expresses the same four signaling dimensions as its metropolitan counterparts, through locally specific carriers and within a narrower symbolic reach, shows that the URTAS-Morocco framework is not simply a metropolitan artifact: it describes a mechanism general enough to specify itself intelligibly across very different territorial settings, a stronger claim than any national average alone could support.

Universities operate on a long timeline by nature. Their reputations build up over decades and carry the weight of sustained collective investment in knowledge, governance, and civic life. In Morocco, as in other fast-developing economies, the real challenge is making that long-accumulated asset visible, coherent, and usable in a competitive present, not only for the institutions themselves but for the territories, metropolitan and secondary alike, whose futures depend on them in no small part.

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